

The Harrison Lecture, 1978

Sexually transmitted diseases and travel

Passage to India, 1971

C. S. NICOL

From St Thomas's Hospital, London

I feel greatly honoured to have been asked to give the third Harrison Lecture, following such giants in the subject as Ambrose King and Tommy Turner. It is appropriate, however, that it should be given at St Thomas's Hospital—Colonel Harrison's old hospital. I am taking as my subject the importance to the individual of travel abroad in the study of sexually transmitted diseases (STDs) and, in particular, the planning and execution of a visit to India in 1971 by invitation of the British Council.

I am sure that Colonel Harrison would have been the first to agree on the value of experience gained in travel, whether obligatory, as in the armed Forces in two world wars, or, voluntarily, as in World Health Organisation (WHO) fellowships or in attendance at meetings of the International Union for the Venereal Diseases and Treponematoses (IUVDT) and the Medical Society for the Study of Venereal Diseases (MSSVD). It is no coincidence that a photograph of Colonel and Mrs Harrison attending an international meeting appears in the first Harrison Lecture (King, 1974). It is most important to take one's wife to such meetings whenever possible.

In the second world war, I was fortunate enough to be a member of Ambrose King's team between 1941 and 1945, firstly at the Royal Victoria Hospital, Netley, and later at the Military Hospital, Westbury. The hyperthermia unit, in which I was one of the first guinea pigs, was established as a result of Ambrose King's pre-war visit to the United States. This visit also fostered his close friendship with Dr Earle Moore, which continued during and after the war and resulted in the opportunity for a series of year-long fellowships for young physicians at the Johns Hopkins Hospital (Medicine I Department) under the inspired guidance of Dr Moore. I was very

fortunate to be the first to be nominated by Ambrose King in 1949.

For many years meetings of the IUVDT have been held in various host countries twice every five years, one of them to coincide with the international meeting of dermatologists. The programme of these meetings has mainly concerned the social aspects of STD. My first experience of such a meeting was at Naples in 1955, as a representative of the BFVD, which Colonel Harrison helped to form with a very generous donation.

Meetings of the MSSVD used to be held only in London, but more recently a meeting has been held every alternate year in the provinces. In 1961, when I was secretary of the society, a meeting was held in Paris with the co-operation and enthusiasm of Pierre Durel and André Siboulet, and I am glad to say that meetings abroad every alternate year are now the regular policy of the society.

Fellowships ranging from a few months to a year or more were given by the WHO in the post-war era, and meetings of experts in Geneva were arranged at regular intervals. Many young doctors remember with gratitude the help and advice of Thorstein Guthe. Dick Willcox has worked closely with the WHO and has a world-wide reputation.

In recent years hospital and regional funds available for travel in the study of STDs have diminished, and I am glad to say that this fact has been appreciated at the Department of Health and Social Security (DHSS). As a result funds have been provided during the last few years for travel abroad for doctors, nurses, and ancillary staff working in the field of STD.

Introduction to India

It is to all those who plan to take advantage of such facilities in the future that I give some details of the planning of a travel project I was invited to undertake in 1971. In the spring of that year the

Address for reprints: Dr C. S. Nicol, Lydia Department of Genitourinary Medicine, St Thomas's Hospital, London SE1 7EH

Received for publication 15 August 1978

British Council invited me to plan with them a visit by air to India to report on the situation regarding STDs. The visit was to start in late October and to last four weeks. It is worth remembering that air fares can cover stops en route, and it was agreed at an early stage in the planning that an extra two weeks should be spent on a visit to Afghanistan on the outward journey and a visit to Iran and the Lebanon on the return journey. I will confine myself to the preparation of the programme for the four weeks in India, visiting New Delhi, Calcutta, Madras and Vallore, and Bombay and Poona. It was my first visit to the sub-continent (Fig. 1).

In *The Times* newspaper of 13 January, 1978, Bernard Levin commented: 'I am off to India for the first time. How many educated Englishmen know anything of Indian history earlier than when the British and French came? How many Europeans even know that the Greeks were there two millenia

earlier? What do we know of the Moghul Empire or of the strange migration of Buddhism from the land of its birth? Precious little, most of us.' This state of affairs can be put to rights by reading the necessary guides and reference books on the geography and history of the sub-continent and thus gaining some knowledge of its art and literature, its sociology and current affairs.

PREPARATION

At least three prepared lectures on STD with slides should be taken for a trip of this duration. A working, five-day week was agreed, which allowed me to see places of historical interest. A tour abroad can be ruined by illness, so the DHSS handbook (DHSS, 1977) should be carefully studied. The risk of contracting malaria or infective hepatitis should not be underestimated; besides routine vaccination, as well as cholera and TAB inoculations, it is also

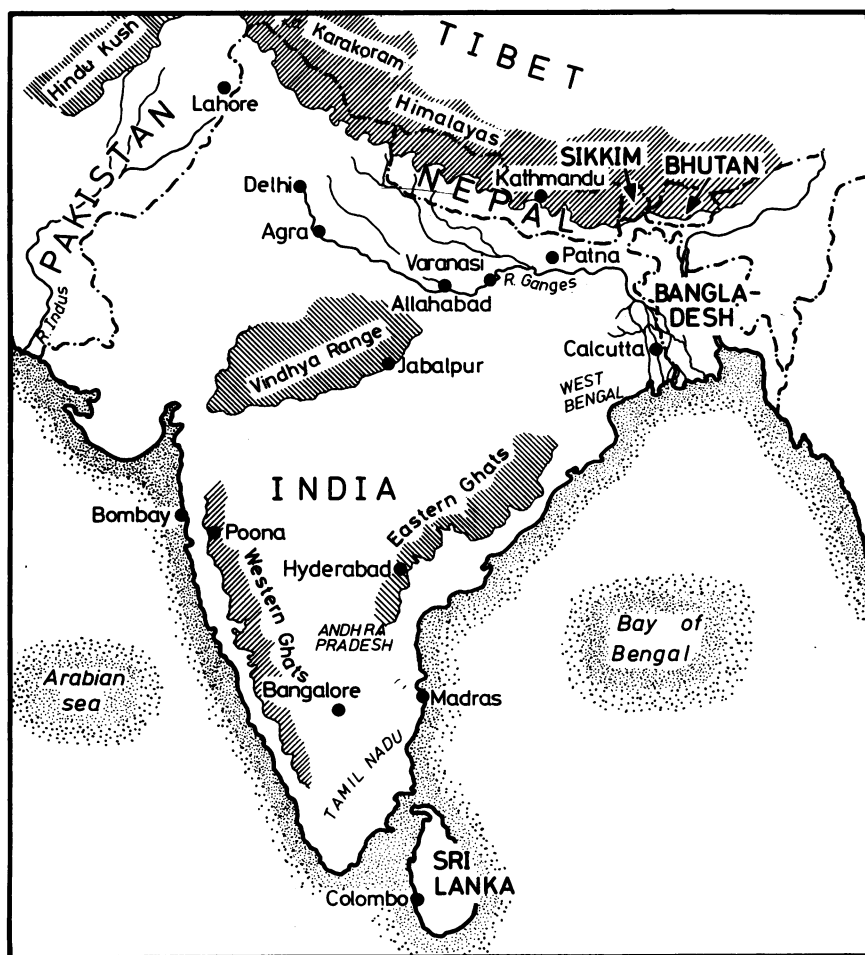


Fig. 1 Map of India

easy to protect against polio. Symptomatic and antibiotic treatment for gastroenteritis should be carried. Anti-sunburn lotions and insect repellents may be useful; even the STDs are mentioned as a hazard. Remember it is pleasant to be able to acknowledge hospitality given on a tour by taking your hostess a small present.

GEOGRAPHY

From east to west in the northern regions lie the Himalayas, the Karakoram, and the Hindu Kush mountains (now in Pakistan), which supply the watershed for the two great river systems, the Ganges and the Indus (also now in Pakistan). To the south of these lie the Vindhya Range, the Deccan plateau, the Eastern and Western Ghats, and southern India. The historic invasion routes were through the Karakoram, Khyber and Bolan passes, and by sea via the Bay of Bengal and the Arabian Sea. The plains of India can be visited between October and April but become very hot in May and June until the south-west monsoon rains come in July, August, and September; the north-east monsoon brings rain to the south-eastern parts of India from December to February.

HISTORY AND RELIGION

The history of India starts with the civilisation of the Indus valley—dating back to 2500 BC—where excavations have taken place at the main sites of Harappa and Mohenjo Daro (now in Pakistan), which has a population of 20 000; there was advanced town planning in a priest-dominated society.

Aryan invasions from the north occurred in 1500-500 BC; these people from central Asia were nomadic and were ruled by kings (Rajas). They conquered and absorbed the Indus civilisation and drove the more primitive and dark-skinned Dravidians into southern India. The Aryan language was Sanskrit and 'vedas' (sacred Hindu hymns) were composed at this time. The caste system of (a) the Brahmins (priests, teachers, and scholars), (b) the Kshatriyas (warriors and administrators), (c) the Vaisyas (the mass of the people, including traders and artists), and (d) the Sudras (serfs, the old untouchables) evolved. Hindus believed that pollution occurred if there was contact with a member of a lower caste.

Hinduism

Hinduism is a blend of countless cults and gods developing into a vast mythology dominated by three gods: Brahma (the creator); Siva (the destroyer); and Vishnu (the preserver). Vishnu has 10 incarnations (avatars) and, of these, two—Rama and

Krishna—are the most important. Rama was the hero of the epic, *Ramayana*, and Krishna was the hero of *Mana Bhanta*. The gods had consorts, such as Parvati, the consort of Siva—the most powerful goddess—who could also appear in an aggressive form as Kali or Durga. Animals venerated by the earliest Indian societies were joined to the Hindu pantheon as companions of major deities.

Some useful terms in Hinduism are:

Karma—ethical cause and effect, the natural law, the belief in reincarnation

Dharma—duty, moral code

Bhakti—devotion to a personal god (such as Krishna)

Yoga—physical, mental, and psychic techniques in body control

Tantra—erotic mysticism

Buddhism

Around 570 BC a Hindu prince, Siddhartha (Gautama Buddha, 'The Enlightened One'), was born in northern India; he is considered to be another avatar of Vishnu. Two types of Buddhism developed: (a) the Lesser Vehicle or Hinayana, with Buddha represented as a teacher who reaches Nirvana, the state when no further reincarnation is needed; and (b) the Greater Vehicle or Mahayana, with Buddha as a god and many Bodhisattvas, who reject ultimate Nirvana in order to help humans on earth.

Buddha in his lifetime preached four Noble Truths: (a) life is suffering; (b) the reason for suffering is craving for individual fulfillment; (c) the duty is to overcome this; and (d) the means is the eightfold path of right understanding, right purpose, right speech, right behaviour, right means of livelihood, right effort, right awareness, and right meditation. Later in the Greater Vehicle it was recognised that Buddha was a god and that heaven and hell existed.

Islam

A comparatively new religion from Arabia was brought to India by Arab invaders in the eighth century AD. Moslems devoted their lives to Islam or to submission to God. The religion of Islam preached a rigid monotheism—that is, that there is a God and Mohammed was his prophet. Finally, Islam held that all Moslems were brothers and that all men were equal before God, regardless of their class or colour; their Bible is the Koran. The Sunni sect are in the majority in India; the Shia sect, with different laws and stricter rules, are in the majority in Afghanistan and Iran.

Mauryan Empire

There were three great Indian empires before the

Europeans appeared on the scene. In 327 BC Alexander the Great, having vanquished the Persians, invaded India and met and defeated King Porus on the Indus; however, two years later his army forced him to retreat. In this power vacuum the Mauryan kings conquered all India by 300 BC. Their great emperor, Ashoka, adopted Buddhism as the state religion. He also set up rock and pillar edicts all over his domain.

Gupta Empire

Between AD 400 and 500 a new power, the Guptas, controlled all northern India. Buddhism was on the wane and had lost popular support, while the Indian epic, the Hindu *Ramayana*, was composed, and modern, orthodox Hinduism was established. The Guptas were overthrown by Huns from central Asia. These were followed by Moslem, Arab, and Turk invasions in the eighth and twelfth centuries and were opposed in northern India by the Hindu Rajputs. Delhi Sultanate was founded in the twelfth century but it was sacked by Timur at the end of the fourteenth century. By this time the Pahlava Empire in southern India held sway from the fourth to ninth centuries and was at its height in the seventh century AD.

Moghul Empire

A new wave of Islamic invasions was led by Babur, a descendant of Ghengis Khan and Timur, after he was driven from Samarkand. He captured Agra and Delhi in AD 1526 and founded the Moghul Empire. He was succeeded by his son, Humayun, who promptly lost control of the empire and was in exile for 15 years. He returned to Delhi in 1556, however, but died the next year and was succeeded by his son, Akbar, the greatest of the Moghuls (a contemporary of Elizabeth I of England). He founded a new monotheistic religion (Din Illahi) in 1582 and married a Hindu princess. His son, Jahangir, was weak and frivolous; his Persian wife, Nur Jahan, held the power. He was succeeded by Shah Jahan, who built the Taj Mahal in memory of his wife, Mumtaz Mahal. He was deposed and imprisoned by his son, Aurangzeb, an Islamic fanatic who persecuted the Hindus and weakened the empire; he died in AD 1707 after subjugating southern India. Since the arrival of the Portuguese in Goa in 1525, and the founding of the East India Company in the seventeenth century, the scene was being set for the establishment of the British Raj. It remained for Lord Curzon, when viceroy, to restore Indian architectural gems and re-establish interest in the three great Indian empires I have described.

CONTEMPORARY HISTORY

India, when we visited it in 1971, was the largest

democracy in the world, with a population of over 550 million and territories of over 1¼ million square miles. Its principal language was Hindi, spoken in southern India, but altogether there were over 800 other dialects. There were 60 million Moslems and another 30 million non-Hindus. The numerous sects which had split from Hinduism included the Sikhs and Jains; Buddhism, as an active religion, had by that time disappeared from India. The main population was rural with 80% employed on the land and only 20% living in the urban areas. Tribes occupied some of the forest areas, and they had no caste system.

India became an independent State in August 1947. It was a secular State dedicated, under the influence of Gandhi and his Congress Party, to the gradual elimination of the more archaic anomalies of Hindu law and custom—such as the caste system—to relieve the plight of the untouchables. Sati (suttee), the burning of widows, had been made illegal under the British Raj. Equal rights were given to all racial and religious minorities, and a federal system divided power between the central government and the various states, but the central government had the right to take over power if state administration broke down. The Government of India with Mrs Indira Gandhi, as premier, represented the left wing of the split Congress Party; she gained a large majority at the polls in the mid-term election. The troubles in East Pakistan resulted in millions of refugees fleeing into West Bengal and precipitated a crisis with Pakistan which brought the country to the brink of war. India, as a developing country, was the largest receiver of foreign aid, some £466 million a year. The income of the average Indian, however, was still only £30 a year.

To bring us up to date, in 1971 the India-Pakistan conflict broke out and resulted in the defeat of Pakistan and the emergence of independent Bangladesh. Then followed, in 1975, the emergency rule of Mrs Indira Gandhi and finally her defeat at the polls by Mr Morarji Desai and his Janta party. Now there are actions in the courts against both Mrs Gandhi and her son, Sanjay; there is evidence which suggests that male sterilisation to control a population explosion was not always voluntary.

MEDICAL MANPOWER

In 1966 there were nearly 200 000 doctors registered in India with 2000 (1%) in the United Kingdom and 2000 (1%) elsewhere abroad. There were 85 medical schools (short of many hundreds of teachers). Now, 15 000 Indian doctors in the United Kingdom are members of the Indian Medical Association. The ancient Indian medical term, 'ayurveda', means that men should use health as a means of developing

higher pursuits; most doctors in India, however, follow the Western tradition nowadays.

SOCIOLOGICAL ASPECTS

To quote from *Which Country?* by Stark Murray (1967): 'It is very difficult to find out what young people think about love, sex, and marriage in India, for they have not yet reached the stage of public discussion on such matters.'

Arranged marriages suggest a separation of emotional love from sexual intercourse, and older Indian doctors sometimes argued that this was a better state of affairs than the Western concept of the one as part of the other. From this it would appear that India has no need to worry about the problems, which occupy so much time and effort in Christian countries, such as premarital sexual intercourse, chastity, and sexual morals in general. But there seems to be a ready acceptance of prostitution—indeed some advocacy of its essential place in society; and quite definitely there is considerable masculine belief still in two different sexual codes. Between 1965 and 1970, 5½ million Indians were sterilised, and in 1969 alone 53 million contraceptives were distributed under the family planning scheme.

A most detailed study of Indian culture and society is given in the book, *The Speaking Tree*, by R. Lannoy (1971). It attempts to identify the sources of the difficulties which India is currently experiencing; to quote: 'There is probably nothing in the life of foreign peoples more prone to misconception than the way they conduct their sexual life. India is no exception; the foreigner often forms a coloured, not to say lurid, picture compounded of erotic temple sculpture, the Kama Sutra, mystical orgiasticism, and Bombay's "street of the cages". At the same time, while he has probably heard about the cult of phallic deities (lingam), the foreigner also notices a counter-emphasis in religion on asceticism, a puritanical social life with a tabu on overt expression of tenderness between young people, and sentimental movie romances in which kissing is prohibited. All these things exist, of course, while the Indian cultural heritage projected by the tourist industry is also complex, but if we are to understand it we must penetrate the screen of romanticism to the lives of real men and women. It seems that every alternate generation in the West produces the fantasy of a heightened Indian sexuality; the cult of psychedelic Hindu eroticism in the 1960s was just such a case. This too we must circumvent if anything like an objective assessment is to be made.'

Two articles by Peggy Holroyde (1971), a social worker, reviewed the revolt of youth in the West and concluded that Indian urban civilisation seemed 'hell

ben't' on imitating the West, although she saw some hope in the 'psychological safety valve' of Hindu philosophy. *The Twice Born* by Carstairs (1971) gave details of promiscuity in village life and a high incidence of venereal disease in some tribes.

Tour

NEW DELHI

On our arrival in New Delhi on 8 October, the British Council was most helpful in arranging hospital, laboratory, and research centre visits. Outstanding among these visits was that to the All-India Institute of Medical Sciences, under the direction of Professor Bhutani. Visits were also made to the Department of Health and the regional office of the WHO. The British Council also supplied hospitality for me to meet key hospital personnel. A medical conference was attended and two lectures were given. Finally, a press conference and an interview on All-India Radio were arranged. Adequate time was available for sightseeing in Delhi and Agra (Fig. 2), where a further lecture was given.

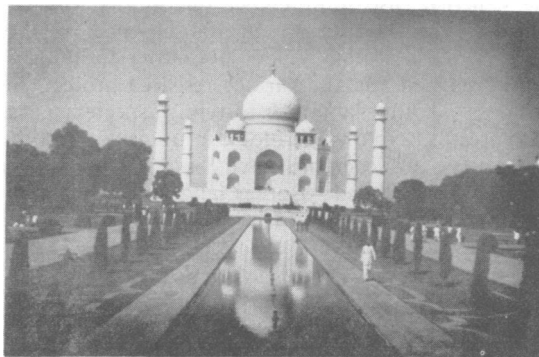


Fig. 2 Taj Mahal, Agra

CALCUTTA

From Delhi we flew to Varanasi and then on to Kathmandu, where we got a brief view of Mount Everest. We finally arrived in Calcutta on 19 October. The British Council arranged a visit to three hospital clinics and a laboratory. I met the director of health services and gave two lectures. We visited the National and Victoria Museums and were taken round Flagstaff House.

MADRAS

We arrived in Madras on 24 October. A British Council car drove us direct to Vellore. We stayed in the compound of the Christian Medical College founded by an American missionary, Dr Ida Scudder, in 1902. The hospital in Vellore now has

1200 beds and a private wing. A lecture was given there. On our return to Madras we visited the Poonamallee Health Unit, which was receiving financial support from the Rockefeller Foundation. There were eight sub-centres covering a population of 90 000 in 39 villages. On my return to Madras I met the State Minister of Health.

My main visit in Madras was to the Institute of Venereology. We were met by Dr Rangiah, the ex-director, in the absence of the director, Dr Sowmini. We inspected the clinic, seeing both the male and female sections in action, and met members of the staff. Inpatient cases were discussed on a ward round. Many patients with congenital and cardiovascular syphilis and neurosyphilis were seen, which are now rare in the United Kingdom. Diagnosis, prognosis, and treatment were discussed in a 'grand round'. A lecture was given, which was well attended. The next morning, recent advances in the diagnosis of syphilis and gonorrhoea and in the aetiology of non-specific genital infection were discussed at a well-attended clinic staff gathering. A campaign to combine the control of venereal diseases with family planning was described. We also visited the Venereal Disease Reference Laboratory with Dr Chacko, the ex-director, in the absence of the director, Dr Krishnan. New laboratory techniques were discussed and the various research projects in progress in the laboratory were inspected. The laboratory's syphilis serology proficiency testing programme was demonstrated; in 1969 and 1970 participants included 49 other laboratories from all over India. We enjoyed two trips to see some of the southern Indian temples and monuments (Fig. 3).



Fig. 3 Mahabalipuram, Southern India

BOMBAY

We arrived in Bombay on 1 November. This city appeared to be the most prosperous and modern in India, although of course there were some slum areas. The British Council arranged a visit to five

hospitals, of which the Grant Medical College was the most impressive. I was shown round by Dr Desai, and two lectures were given.

We also visited Poona, staying at the Turf Club (memories of the Raj). At the Armed Forces Medical College we met General Hoon, the commandant, and then visited Hindustan Antibiotics. Their library was claimed to be the best stocked in India, and included the *Russian Journal of Venereology*; I suggested the *British Journal of Venereal Diseases* would be a useful addition.

An extra visit by air to Aurangabad was arranged at the last moment; the hospital was visited and a lecture given. Aurangabad is the regional centre of Maharashtra State, where there is a high proportion of Moslems. We were able to visit the famous Ajanta and Ellora caves and temples by car and returned by air to Bombay, which ended the Indian part of our tour.

Conclusions and comments

The main objective of the visit to India was to separate the subjects of venereology and dermatology as far as possible and to establish centres in the main cities, including an up-to-date laboratory service with at least one reference laboratory. All this would only be possible if there was a satisfactory career structure in venereology up to the level of professor.

Adequate teaching of STDs at both undergraduate and postgraduate levels must be more organised. Indian doctors and administrators showed unlimited goodwill and enthusiasm to improve standards in the control of STDs (with the exception of a few hard-line dermatologists). The United Kingdom has, in general, better training facilities to offer in this field than either the United States or the USSR, as confirmed by Professor Turner (1976).

There are few reliable statistics on the incidence of the STDs—or even of the trends for the two main diseases, syphilis and gonorrhoea—but what evidence there is suggests that the incidence might be a hundredfold higher than that in the United Kingdom.

The Institute of Venereology and the Reference Laboratory in Madras set the standard that the other main urban centres should follow. The Grant Medical College in Bombay and the combined All-India Institute of Medical Sciences, and the Safdarjang Hospital in Delhi, also come near these standards. The situation in Calcutta is more difficult, but if the university created a chair in venereology it would have good support from the Venereal Disease Reference Laboratory.

In the district venereal disease centres the situation

was indeed desperate. They had small, overcrowded premises, inadequate staff, and in some cases not even the necessary curative drugs. These factors tended to force those who could afford to pay any fee, however small, into the hands of the private medical sector—or even of ‘quacks’—or into buying drugs direct from the chemist’s shop. Despite the federal government’s plans to support these clinics, they would never be operative unless the main urban centres improved and expanded so that they could train enough postgraduates to man the district clinics; only the state of Tamil Nadu seemed to be making any effort in this direction.

Until an immense effort is made to improve the various methods of contact-tracing, complete control of syphilis or gonorrhoea will not be possible and the reservoir of symptomless women will remain. After all, we have not yet got gonorrhoea under control in the United Kingdom, despite a highly sophisticated contact-tracing system.

Health education of the public should be promoted through a scheme similar to that used in teaching family planning. The close-knit structure of the Hindu family was beginning to break down and children no longer accept that their parents had the right to arrange their lives. There was also evidence that the young people in the cities were becoming more permissive. It would be possible to educate these young people by showing slides or short films at cinemas—which are always crowded—and by the other mass media as they develop. There was a need to monitor the trends in permissive attitudes in young Indian girls. In the student class the girl who was engaged might have premarital sexual intercourse, which would lead to further sexual experience if the engagement was terminated and so on thus leading to promiscuity. In the United Kingdom, at present only about 10% of gonococcal infections are acquired from prostitutes, while in India—although the figure may now be 90%—it is highly likely that it will decrease, as young men realise they can get their sexual experience, together with some emotional relationship, free with an amateur.

There was a great need to support those centres which set a high standard in venereology. Further help could be given by the British Council and other organisations by supporting requests for short-term visits to the United Kingdom by clinicians, laboratory workers, and contact-tracers working in the field of STD.

References and suggested reading

- Carstairs, G. M. (1971). *The Twice Born*. Allied Publishers: Bombay.
- Department of Health and Social Security (1977). *Notice to Travellers—Health Protection*.
- Gascoigne, B. (1971). *The Great Moghuls*. Jonathan Cape: London.
- Guillaume, A. (1956). *Islam*, second edition. Pelican Books: London.
- Holroyde, P. (1971). *Sunday World of Delhi*, two articles, 10 October 1947 and 17 October 1971.
- Humphreys, C. (1962). *Buddhism*, third edition. Pelican: London.
- King, A. J. (1974). The First Harrison Lecture, 1974. *British Journal of Venereal Diseases*, **50**, 391.
- Lanny, R. (1971). *The Speaking Tree*. Oxford University Press: London.
- Murray, D. S. (1967). *Which Country?* Gollancz: London.
- Schulberg, L. (1968). *Great Ages of Men—Historic India*. Time-Life International (Netherlands) NV: Amsterdam.
- Turner, T. B. (1976). The Harrison Lecture, 1976: Sexually transmitted diseases as a medical specialty. *British Journal of Venereal Diseases*, **52**, 288.
- Williams, L. F. R. (1968). *Handbook to India*. John Murray: London.
- Zachner, R. C. (1966). *Hinduism*, second edition. Oxford University Press: London.

Editor’s note

THE POSITION IN 1978

The specialty of venereology (sexually transmitted diseases, STD) is still practised along with dermatology and leprosy as a combined specialty in most parts of India, except in Tamil Nadu, Andhra Pradesh, and West Bengal, where all these subspecialties are independent. There is an adviser in STD to the Government of India; the post goes to the most senior dermatovenereologist in the central general government cadre, posted to Delhi.

There are two main associations, the Indian Association of Dermatologists, Venereologists, and Leprologists (a combined association) and the recently formed Indian Association for the Study of Sexually Transmitted Diseases.

The subject of venereology (STD) is taught at the undergraduate level by the dermatovenereologist. At the postgraduate level, dermatovenereology is a combined specialty, except in Tamil Nadu where Madras University awards a specialist postgraduate MD. Recently, the Indian Academy of Medical Sciences has allowed postgraduate candidates to opt either for dermatology or venereology as separate specialties or to take dermatovenereology as a combined specialty.